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<170> PatentIn version 3.0

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<213> Artificial

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<223> oligonucleotide primer

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<211> 1633

<212> DNA

<213> Homo sapiens

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120

gagacataca gacaagaaag gcaaactcac c atg gcc tcc acc aat gca gag
Met Ala Ser Thr Asn Ala Glu
1 5

172

agc cag ctc cag aga atc atc cga gac ttg caa gat gct gtg aca gaa
Ser Gln Leu Gln Arg Ile Ile Arg Asp Leu Gln Asp Ala Val Thr Glu

10 15 20

220

cta agc aaa gaa ttt cag gaa gca ggg gaa ccc atc acg gat gac agc
Leu Ser Lys Glu Phe Gln Glu Ala Gly Glu Pro Ile Thr Asp Asp Ser

268

acc agc ttg cat aaa ttt tct tat aaa ctt gag tat ctc ctg caa ttt Thr Ser Leu His Lys Phe Ser Tyr Lys Leu Glu Tyr Leu Leu Gln Phe 40 45 50 55	316
gat cag aaa gag aag gcc acc ctc ctg ggc aac aag aag gac tac tgg Asp Gln Lys Glu Lys Ala Thr Leu Leu Gly Asn Lys Lys Asp Tyr Trp 60 65 70	364
gat tac ttc tgt gcc tgc ctg gcc aag gtg aaa gga gcc aat gat ggg Asp Tyr Phe Cys Ala Cys Leu Ala Lys Val Lys Gly Ala Asn Asp Gly 75 80 85	412
atc cgc ttt gtc aag tct atc tca gag ctc cga aca tcc ttg ggg aaa Ile Arg Phe Val Lys Ser Ile Ser Glu Leu Arg Thr Ser Leu Gly Lys 90 95 100	460
gga aga gca ttt att cgc tac tcc ttg gtg cac cag agg ttg gca gac Gly Arg Ala Phe Ile Arg Tyr Ser Leu Val His Gln Arg Leu Ala Asp 105 110 115	508
acc tta cag cag tgc ttc atg aac acc aaa gtg acc agt gac tgg tac Thr Leu Gln Gln Cys Phe Met Asn Thr Lys Val Thr Ser Asp Trp Tyr 120 125 130 135	556
tat gca aga agc ccc ttt ctg cag cca aag ctg agc tcg gac att gtg Tyr Ala Arg Ser Pro Phe Leu Gln Pro Lys Leu Ser Ser Asp Ile Val 140 145 150	604
ggc caa ctc tat gag ctg act gag gtt cag ttt gac ctg gcg tcg agg Gly Gln Leu Tyr Glu Leu Thr Glu Val Gln Phe Asp Leu Ala Ser Arg 155 160 165	652
ggc ttt gac ttg gat gct gcc tgg cca aca ttt gcc agg agg acg ctg Gly Phe Asp Leu Asp Ala Ala Trp Pro Thr Phe Ala Arg Thr Leu 170 175 180	700
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agc atg agc agc ttg gtg agc agc tac ctg cag act caa gag atg gtg Ser Met Ser Ser Leu Val Ser Ser Tyr Leu Gln Thr Gln Glu Met Val 200 205 210 215	796
tcc aac ttt gac ctg aac agc ccc cta aac aac gag gca ttg gag ggc Ser Asn Phe Asp Leu Asn Ser Pro Leu Asn Asn Glu Ala Leu Glu Gly 220 225 230	844
ttt gat gag atg cga cta gag ctg gac cag ttg gag gtg cgg gag aag Phe Asp Glu Met Arg Leu Glu Leu Asp Gln Leu Glu Val Arg Glu Lys 235 240 245	892
cag cta cgg gag cgc atg cag cag ctg gac aga gag aac cag gag ctg Gln Leu Arg Glu Arg Met Gln Gln Leu Asp Arg Glu Asn Gln Glu Leu 250 255 260	940
agg gca gct gtc agc cag caa ggg gag caa ctg cag aca gag agg gag Arg Ala Ala Val Ser Gln Gln Gly Glu Gln Leu Thr Glu Arg Glu 265 270 275	988
agg ggg cgc act gca gcg gag gac aac gtt cgc ctc act tgc ttg gta Arg Gly Arg Thr Ala Ala Glu Asp Asn Val Arg Leu Thr Cys Leu Val 280 285 290 295	1036

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gct gag ctc cag aag cag tgg gag gtc acc cag gcc acc cag aac act 1084
Ala Glu Leu Gln Lys Gln Trp Glu Val Thr Gln Ala Thr Gln Asn Thr
300 305 310

gtg aag gag ctg cag aca tgc ctg cag ggc ctg gag cta gga gca gca 1132
Val Lys Glu Leu Gln Thr Cys Leu Gly Leu Glu Leu Gly Ala Ala
315 320 325

gag aag gag gag gac tac cac aca gcc ctg cgg cgg ctg gag tcc atg 1180
Glu Lys Glu Glu Asp Tyr His Thr Ala Leu Arg Arg Leu Glu Ser Met
330 335 340

ctg cag ccc ttg gca cag gag ctt gag gcc aca cgg gac tca ctg gac 1228
Leu Gln Pro Leu Ala Gln Glu Leu Glu Ala Thr Arg Asp Ser Leu Asp
345 350 355

aag aaa aac cag cat tta gcc agc ttc cca ggc tgg cta gcc atg gct 1276
Lys Lys Asn Gln His Leu Ala Ser Phe Pro Gly Trp Leu Ala Met Ala
360 365 370 375

cag cag aag gca gat acg gca tca gac aca aag ggc cgg caa gaa cct 1324
Gln Gln Lys Ala Asp Thr Ala Ser Asp Thr Lys Gly Arg Gln Glu Pro
380 385 390

att ccc agt gat gcg gcc cag gag atg cag gag cta ggg gag aag ctt 1372
Ile Pro Ser Asp Ala Ala Gln Glu Met Gln Glu Leu Gly Glu Lys Leu
395 400 405

caa gcc cta gaa agg gag aga acc aag gtc gag gag gtc aac aga cag 1420
Gln Ala Leu Glu Arg Glu Arg Thr Lys Val Glu Glu Val Asn Arg Gln
410 415 420

cag agt gcc caa ctg gaa cag ctg gtc aag gag ctt cag ctg aaa gag 1468
Gln Ser Ala Gln Leu Glu Gln Leu Val Lys Glu Leu Gln Leu Lys Glu
425 430 435

gat gcc cgg gcc agc ctg gag cgc ctg gtg aag gag atg gcc cca ctc 1516
Asp Ala Arg Ala Ser Leu Glu Arg Leu Val Lys Glu Met Ala Pro Leu
440 445 450 455

cag gag gag ttg tct ggg aag gga cag gag gca gac cag ctc tgg cga 1564
Gln Glu Glu Leu Ser Gly Lys Gly Gln Glu Ala Asp Gln Leu Trp Arg
460 465 470

cgg ctg cag gag ttg ctg gcc cac acg agc tcc tgg gag gag gag cta 1612
Arg Leu Gln Glu Leu Leu Ala His Thr Ser Ser Trp Glu Glu Glu Leu
475 480 485

gca gag ttg agg cgg gag aaa 1633
Ala Glu Leu Arg Arg Glu Lys
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<210> 4
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<212> PRT
<213> Homo sapiens

<400> 4
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Leu Gln Asp Ala Val Thr Glu Leu Ser Lys Glu Phe Gln Glu Ala Gly
20 25 30

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Glu Pro Ile Thr Asp Asp Ser Thr Ser Leu His Lys Phe Ser Tyr Lys
 35 40 45
 Leu Glu Tyr Leu Leu Gln Phe Asp Gln Lys Glu Lys Ala Thr Leu Leu
 50 55 60
 Gly Asn Lys Lys Asp Tyr Trp Asp Tyr Phe Cys Ala Cys Leu Ala Lys
 65 70 75 80
 Val Lys Gly Ala Asn Asp Gly Ile Arg Phe Val Lys Ser Ile Ser Glu
 85 90 95
 Leu Arg Thr Ser Leu Gly Lys Gly Arg Ala Phe Ile Arg Tyr Ser Leu
 100 105 110
 Val His Gln Arg Leu Ala Asp Thr Leu Gln Gln Cys Phe Met Asn Thr
 115 120 125
 Lys Val Thr Ser Asp Trp Tyr Tyr Ala Arg Ser Pro Phe Leu Gln Pro
 130 135 140
 Lys Leu Ser Ser Asp Ile Val Gly Gln Leu Tyr Glu Leu Thr Glu Val
 145 150 155 160
 Gln Phe Asp Leu Ala Ser Arg Gly Phe Asp Leu Asp Ala Ala Trp Pro
 165 170 175
 Thr Phe Ala Arg Arg Thr Leu Thr Thr Gly Ser Ser Ala Tyr Leu Trp
 180 185 190
 Lys Pro Pro Ser Arg Ser Ser Ser Met Ser Ser Leu Val Ser Ser Tyr
 195 200 205
 Leu Gln Thr Gln Glu Met Val Ser Asn Phe Asp Leu Asn Ser Pro Leu
 210 215 220
 Asn Asn Glu Ala Leu Glu Gly Phe Asp Glu Met Arg Leu Glu Leu Asp
 225 230 235 240
 Gln Leu Glu Val Arg Glu Lys Gln Leu Arg Glu Arg Met Gln Gln Leu
 245 250 255
 Asp Arg Glu Asn Gln Glu Leu Arg Ala Ala Val Ser Gln Gln Gly Glu
 260 265 270
 Gln Leu Gln Thr Glu Arg Glu Arg Gly Arg Thr Ala Ala Glu Asp Asn
 275 280 285
 Val Arg Leu Thr Cys Leu Val Ala Glu Leu Gln Lys Gln Trp Glu Val
 290 295 300
 Thr Gln Ala Thr Gln Asn Thr Val Lys Glu Leu Gln Thr Cys Leu Gln
 305 310 315 320
 Gly Leu Glu Leu Gly Ala Ala Glu Lys Glu Glu Asp Tyr His Thr Ala
 325 330 335
 Leu Arg Arg Leu Glu Ser Met Leu Gln Pro Leu Ala Gln Glu Leu Glu
 340 345 350
 Ala Thr Arg Asp Ser Leu Asp Lys Lys Asn Gln His Leu Ala Ser Phe
 355 360 365

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Pro Gly Trp Leu Ala Met	Ala Gln Gln Lys Ala	Asp Thr Ala Ser Asp
370	375	380
Thr Lys Gly Arg Gln Glu	Pro Ile Pro Ser	Asp Ala Ala Gln Glu Met
385	390	395 400
Gln Glu Leu Gly Glu Lys	Leu Gln Ala Leu Glu	Arg Glu Arg Thr Lys
405	410	415
Val Glu Glu Val Asn Arg	Gln Gln Ser	Ala Gln Leu Glu Gln Leu Val
420	425	430
Lys Glu Leu Gln Leu Lys	Glu Asp Ala Arg	Ala Ser Leu Glu Arg Leu
435	440	445
Val Lys Glu Met Ala Pro	Leu Gln Glu Glu Leu	Ser Gly Lys Gly Gln
450	455	460
Glu Ala Asp Gln Leu Trp	Arg Arg Leu Gln Glu	Leu Leu Ala His Thr
465	470	475 480
Ser Ser Trp Glu Glu Glu	Leu Ala Glu Leu	Arg Arg Glu Lys
485	490	

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